

**The Impact of Electronic Publishing on the Academic Community**, Ian Butterworth (ed.), Wenner-Gren International Series Volume 73, Portland Press Ltd, London. 1998. Price: £ 75. ISBN: 1 85578 118 2. pp. xxii + 191.

It was a quarter century ago that D. W. Davies and D. L. A. Barber of the National Physical Laboratory at Teddington, UK, speculated about 'one universal network which serves all purposes and carries speech, pictures, data and so forth' (see their book *Communication Networks for Computers*, John Wiley, 1973). Within twenty years their dream came true and today computer and communication technologies have merged into a seamless continuum and the Internet and the World Wide Web provide the platform to do everything that Davies and Barber asked for and very much more.

People in business, the stock market and the international currency market have recognized and exploited the enormous advantages conferred by developments in information and communication technologies, and today the volume of business transacted through e-commerce is estimated to be in billions of dollars a year. But what have the academics, who after all invented all the developments, done with the new technologies? How are they coping with the tremendous changes taking place at a rapid pace? The primary role of academics is that of producer and guardian of new knowledge. But now, as electronic storage and transmission take over from good old print, it seems that this responsibility is being transferred to others – mostly commercial corporations who own, distribute, deliver and modify information.

It is in this context that the Academia Europaea decided to hold a workshop on the impact of electronic publishing on the academic community with the support of the Wenner-Gren Foundation in Stockholm, during 17–20 April 1997. Speakers and participants had come from academia, research laboratories, society, and commercial publishers and policy making bodies. The volume under review is the published proceedings of this workshop.

Apart from the Introduction and General Conclusions, written by the editor, there are 37 well-written papers under seven

sections, viz. the present situation and the likely future, legal and political issues, the content and quality of academic communication, social and cultural issues, digital libraries and archiving of electronic information, access to data repositories, and supplementary papers. The papers are by and large level-headed. For example, Arnoud de Kemp, chairman of the Innovation Committee of the Association of Scientific, Technical and Medical Publishers, admits that 'the Internet still can learn a lot from print'. A recurring theme of the book is the need to recognize that there are important differences between disciplines in the benefits, requirements, and applications of electronic publishing. What is right for physics or molecular biology is not necessarily appropriate for the humanities, legal studies or computing science. Physicists and astronomers, even in developing countries, appear to adapt to new information technologies much better than the rest of the scientific community.

It would have been equally admirable if the conference had emphasized that what is good for Europe and North America is not necessarily appropriate for the developing countries. After all, despite claims to the contrary, the nascent and burgeoning information revolution is *not* a world-wide phenomenon. Look at some facts: just five G-7 countries, viz. USA, Japan, Germany, France, and the UK, accounted for 80% of the information technology market in 1994; by July 1996, developed countries had 201 personal computers per 1000 people compared to only 6.2 per 1000 in the rest of the world; the Internet is overwhelmingly American-based, English-speaking, and Western-focused; in January 1997, 63% of the estimated 16.15 million host computers connected to the Internet were in the United States, 74% in English-speaking nations, and fully 90% of the Internet operated out of Western countries. Particle physicists in the West, especially the younger ones, never look at printed journals; they get all the information from the display screen. In contrast, only a small minority of physicists in the developing world has access to the Los Alamos e-print archive. Soon there will be similar archives for other fields as well. Obviously the transition from print to electronic will affect the scientists and

scholars of the developing countries in ways quite different from how it affects those in Western Europe and North America. (Even in the West, there are differences among nations in their use of information and communication technologies, as Nicholas Negroponte keeps pointing out).

The workshop was Eurocentric, although the subject was of universal interest. Except for seven participants from the United States, all the rest, numbering about 75, were from Europe. No one from the developing countries of Asia, Africa and Latin America was there at the workshop, although the issues discussed concerned them as well. Thus the conference missed some valuable insights which only scientists and publishers from the developing countries could have provided.

Having said that, I cannot but admire the exceptional quality of the presentations put together in this slim volume. Papers are short and to the point. No frills. As all the participants have an involvement with electronic publishing at some level or the other, their statements have a certain ring of authenticity. Going through this book, one can know almost all the important developments that have taken place in electronic publishing and all the key issues.

This book is important to us – Indian academics and researchers – for the reason that we are facing the threat of being left behind. While the rest of the world is rapidly moving to electronic publishing and digital libraries, most of us continue without even the basic access to telephones, email and Internet, and are helplessly watching different arms of the telecom sector quarrelling with one another.

For those of us who have access to the Internet, the book is available at: [http://www/portlandpress.co.uk/books/online/tiepac/default.htm](http://www.portlandpress.co.uk/books/online/tiepac/default.htm). Indeed, that is where I saw the book first!

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